Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An optical system comprising:

an optical transmitter configured to transmit information over two channels, each channel being at a different wavelength; ~~configured to transmit information over at least one channel, each channel being at a different wavelength;~~

two optical filters, each of the optical filters including a band filter configured to filter at least one optical channel and a periodic filter configured to receive the at least one optical channel from said band filter and provide a single filtered optical channel and shape the bandwidth of the single filtered, shaped optical channel, wherein each of the band filters has a bandwidth at least twice as large as a periodic bandwidth of each of the periodic filters, wherein each of said band filters includes a filter selected from a group consisting of a fiber Bragg grating, a Fabry-Perot filter and a thin film filter, wherein each of said periodic filters includes a filter selected from a group consisting of a Mach-Zehnder filter, a Michelson interferometer, and an arrayed waveguide; and ~~an optical filter including a band filter configured to filter at least one optical channel and a periodic filter configured to receive, filter, and shape the at least one optical channel from said band filter and provide a single filtered, shaped optical channel; and,~~

an optical receiver positioned proximate the optical filter in the network and configured to receive at least two ~~the single~~ filtered shaped optical channels, wherein said optical receiver is configured to receive and convert the two filtered, shaped optical channels into two electrical signals and combine the two electrical signals into one electrical signal.

2. (original) The system of claim 1, wherein said band filter is tunable over at least a portion of the optical system wavelength spectrum.

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (original) The system of claim 1, wherein said band filter is a tunable Fabry-Perot filter and said periodic filter is Mach-Zehnder filter.

7. (original) The system of claim 6, wherein said periodic filter is a double pass Mach-Zehnder filter.

8. (cancelled)

9. (original) The system of claim 1, wherein:

said optical transmitter is one of a plurality of optical transmitter, each configured to transmit information over two channels, each channel being at a different wavelength;

said optical filter is one of a plurality of optical filters, each including a band filter configured to filter at least one optical channel and a periodic filter configured to receive the at least one optical channel from said band filter and provide a single filtered optical channel and shape the bandwidth of the single filtered, shaped optical channel; and,

said optical receiver is one of a plurality of optical receivers, each configured to receive and convert the two filtered, shaped optical channels into electrical signals and combined the two electrical signals into one electrical signal from at least one of said optical filters.

10. (currently amended) An optical receiver comprising:

two optical filters, each of the optical filters including a band filter configured to filter at least one optical channel and a periodic filter configured to receive the at least one optical channel from said band filter and provide a single filtered optical channel and shape the bandwidth of the single filtered, shaped optical channel, wherein each of the band filters has a bandwidth at least twice as large as a periodic bandwidth of each of the periodic filters, wherein each of said band filters includes a filter selected from a group consisting of a fiber Bragg grating, a Fabry-Perot filter and a thin film filter, and wherein each of said periodic filters includes a filter selected from a group consisting of a Mach-Zehnder filter, a Michelson interferometer, and an arrayed waveguide; and

~~an optical filter including a band filter configured to filter at least one optical channel and a periodic filter configured to receive, filter, and shape the at least one optical channel from said band filter and provide a single filtered, shaped optical channel; and,~~

a photodiode configured to receive the two ~~single~~ filtered, shaped optical channels ~~channel~~ and convert them ~~it~~ into ~~an~~ two electrical signals ~~signal~~.

11. (currently amended) A method of receiving an optical signal comprising:

receiving two optical channels, each optical channel being at a different wavelength;

filtering the two optical channels using two optical filters, each of the optical filters including a band filter configured to filter at least one optical channel and each of the optical filters including a periodic filter configured to receive at least one of the optical channels from one of the band filters and provide a single filtered optical channel and shape the bandwidth of the single filtered, shaped optical channel, wherein each of the band filters has a bandwidth at least twice as large as a periodic bandwidth of each of the periodic filters, wherein each of said band filters includes at least one filter selected from a group consisting of a fiber Bragg grating, a Fabry-Perot filter and a thin film filter, and wherein each said periodic filters includes a filter selected from a group consisting of a Mach-Zehnder filter, a Michelson interferometer, and an arrayed waveguide;

converting the two filtered, shaped optical channels into electrical signals; and

combining the two electrical signals into one electrical signal.

~~providing an optical filter including a band filter configured to filter at least one optical channel and a periodic filter configured to receive, filter, and shape the at least one optical channel from said band filter and provide a single filtered, shaped optical channel; and,~~

~~converting the single filtered optical channel and convert it into an electrical signal.~~

12. (cancelled)

13. (cancelled)

14. (previously presented) The optical system of claim 1, wherein:

the optical transmitter is one of a plurality of optical transmitters configured to transmit information over at least one channel, each channel being at a different wavelength; and,

the optical receiver is one of a plurality of optical receivers configured to receive at least single filtered shaped optical channel, and wherein, the optical filter is included in the optical receiver.

15. (previously presented) The system of claim 1, wherein the optical filter and the receiver are included within the same module, which further includes an optical transmitter for transmitting an optical signal carrying information received by the receiver.

16. (previously presented) The system of claim 1, wherein the periodic filter is included with the optical receiver within the same module and the band filter is not included in the module.

17. (previously presented) The system of claim 1, wherein the band filter is at least one of a bulk grating and an arrayed waveguide.

18. (previously presented) The system of claim 1, wherein the periodic filter has a periodic pass band that is adjustable via a controller based on the characteristics of the signal being received by the optical receiver.

19. (previously presented) The system of claim 1, wherein the system includes at least one of optical amplifiers, optical switches, and optical add-drop multiplexers.

20. (previously presented) The system of claim 1, wherein the band filter has a bandwidth is less than the period of the periodic filter.

21. (previously presented) The system of claim 1, wherein the periodic filter decreases the amount of optical noise passed by the band filter that reaches a photodiode in the optical receiver.

22. (previously presented) The system of claim 1, the band filter is configured to separate one channel from a plurality of optical channel, and the periodic filter filters optical noise from the one channel at wavelengths proximate to the wavelength of the one channel.